

WO 2005/049925

PCT/AU2004/001600

15

**THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:**

1. Boom gate apparatus including:
  - (i) a portable trolley;
  - (ii) an elongate gate mounted to the portable body; and
  - 5 (iii) actuating means for moving the elongate gate from an upright non-operational position to a horizontal operational position characterised in that;
  - (iv) said actuating means is controlled by a hand held controller or transmitter.
- 10 2. Boom gate apparatus as claimed in claim 1 wherein the portable trolley has a single pair of wheels and a handle.
3. Boom gate apparatus as claimed in claim 1, wherein the elongate gate comprises a single elongate arm.
4. Boom gate apparatus as claimed in claim 1 wherein the actuating  
15 means is a drive motor coupled by a belt or chain drive to a pivot arm which is operatively connected to the elongate gate by connection means.
5. Boom gate apparatus as claimed in claim 1 wherein the connection means is a connection sleeve or joint between the elongate gate and the pivot arm which is releasably attached to the elongate gate.
- 20 6. Boom gate apparatus as claimed in claim 5 wherein the elongate gate is connected to the connection sleeve by a splined or keyway arrangement so that the elongate gate and connection sleeve may rotate in unison.
7. Boom gate apparatus as claimed in claim 4 wherein the elongate gate is oriented normal to the pivot arm.

WO 2005/049925

PCT/AU2004/001600

16

8. Boom gate apparatus as claimed in claim 4, 5, 6 or 7 wherein the drive motor is an electric motor powered by one or more batteries.

9. Boom gate apparatus as claimed in any preceding claim wherein the mobile trolley has a housing for the actuating means wherein in said housing  
5 there is located a receiver which receives a signal from the hand held controller or transmitter.

10. Boom gate apparatus as claimed in claim 9 wherein the signal is IR or RF.

11. Boom gate apparatus as claimed in claim 10 wherein the hand held  
10 controller is IR and the receiver is IR.

12. Boom gate apparatus as claimed in claim 11 wherein the housing has a transparent window located in an external wall thereof for transmission of the IR signal.

13. Boom gate apparatus as claimed in claim 11 wherein the housing  
15 includes an IR receiver which transmits a signal to an RF receiver in the housing which sends a signal to a microprocessor which actuates the drive motor.

14. Boom gate apparatus as claimed in any preceding claim wherein there is provided a traffic indicator adjacent the elongate gate for indicating:  
20 (i) when traffic is free to pass through the elongate gate when in an elevated non-operational position; and

(ii) when traffic is blocked from passing through the elongate gate when lowered to an operational position.

15. Boom gate apparatus as claimed in claim 14 wherein said traffic

WO 2005/049925

PCT/AU2004/001600

17

indicator includes a green light for position (i) and a red light for position (ii).

16. A pair of boom gate apparatus having components (i), (ii) and (iii) as defined in claim 1 remotely controlled and operated by a hand held transmitter or controller.

5 17. A method of operation of a pair of boom gate apparatus as claimed in claim 16 wherein said pair of apparatus is used to block adjacent lanes of a roadway to thereby prevent passage of traffic in different directions.

18. A method of operation of boom gate apparatus as claimed in claim 1 which includes the steps of:

10 (a) lowering the elongate gate by remote control using the hand held transmitter or controller to prevent passage of traffic along a roadway or lane of a roadway which said boom gate apparatus is located adjacent thereto;

(b) permitting one or more persons to cross the lane or roadway  
15 while the elongate gate is in the lowered position; and

(c) elevating the elongate gate to permit traffic along the roadway or lane when said one or more persons have crossed the roadway or lane.

19. A method as claimed in claim 18 wherein in step (a) and/or (b) a red light is flashing or other visual or audible indicator to indicate traffic should  
20 stop.

20. A method as claimed in claim 18 wherein in step (c) a green light is flashing or other visual or audible indicator to indicate traffic is free to pass along the roadway or lane previously blocked by the elongate gate.

21. A method as claimed in claim 18 wherein a pair of said boom gate

**WO 2005/049925**

**PCT/AU2004/001600**

**18**

**apparatus is used to block adjacent lanes of a roadway for traffic and steps  
(a), (b) and (c) are carried out simultaneously by each boom gate apparatus.**